REMARKS

Claims 1, 9, 18 and 25 are amended. Claims 1-6, 8-15, 17-22, 24-29, and 31 are pending. No new matter is added.

Claim Rejections under 35 U.S.C. Section 112

Claims 18 is amended to provide proper antecedent bases for the phrase "the flash erase file." Applicant respectively requests that the rejection of claim 18 under 35 U.S.C. 112, second paragraph, be withdrawn.

Prior Art Rejections under 35 U.S.C. Section 103

In the Office action, claims 1-6, 9-15, 18-22, 25-29 and 31 were rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent 6,055,632 to Deegan et. al. (Deegan) in view of U.S. Patent 6,070,012 to Eitner et. al. (Eitner). Applicant respectively traverses this rejection.

Claim 1 of the application recites a method that includes <u>automatically</u> upgrading internal software of a peripheral device installed in a network device using an upgrade package. The upgrade package includes a flash erase file and upgrade software for the peripheral device. The method includes appending contents of the flash erase file to a packet header, the packet header containing instructions for the peripheral device for overwriting contents of software in the peripheral device <u>with the appended contents</u>, and transferring the packet header and upgrade software to the peripheral device by a connection for updating the peripheral device. Independent claims 9, 18 and 25 recite similar features.

An example of the upgrade package is discussed in connection with FIG. 4 of the specification. In that example, the package contains a flash erase file 64 that is used to erase the old software in the peripheral device 10, thus setting the peripheral device 10 to a mode in which the new software 62 can be implemented. As disclosed in the specification, the flash erase file

64 can contain all zeros or equivalent null data content that is used to erase specified memory locations in the peripheral device 10. (Specification, page 4, lines 6-9)

An example of setting the peripheral device to an upgrade mode using the flash erase file is further discussed in connection with FIG. 5 of the specification. In that example, one line of the flash erase file 64 is read from the memory 18, appended 72 to a packet header and checked 74 to confirm that it is in a valid format. The packet header contains instructions for the peripheral device 10 to overwrite the contents of its software 11 with the contents of the packet. The packet then is sent 76 to the peripheral device 10 over a connection 22. An upgrade routine 20 checks 78 if the flash erase file's 64 transfer is complete, and repeats blocks 70, 72, 74, and 76 until the entire file is downloaded to the peripheral device 10. (Specification, page 4, lines 6-10)

The Deegan reference relates to a method and apparatus for transferring firmware to a non-volatile memory of a programmable controllable system. Although the reference discusses upgrading nonvolatile memory, it does not teach automatically upgrading internal software of a peripheral device as recited in pending claim 1. In particular, the reference discloses, in connection with FIG. 2, that it is the "*firmware provider* that conducts the firmware upgrade." (Deegan, col. 6, lines 27-28). There is no suggestion or teaching of automatically upgrading internal software of a peripheral device as recited in pending claim 1.

The Office Action further alleges that the firmware upgrade disclosed in the Deegan reference occurs automatically and refers to the following statement in Deegan:

"the processor module 20 could *determine* on its own that new firmware is required..."

(col. 6 lines 62-63) (emphasis added)

Applicant respectfully disagrees. The quoted section of Deegan relates to determining whether new firmware is required. In contrast, the pending claims recite automatically upgrading internal software of a peripheral device. Independent claims 1, 9, 18, and 25 do not recite *determining* whether new firmware is *required*.

The Office action acknowledges that the Deegan reference does not disclose the upgrade package including a flash erase file, and appending contents of the flash erase file to a packet header, as recited in claim 1, but alleges that the Eitner reference discloses aspects of appending a flash erase file to a packet header for transferring across a connection as claimed. Applicant respectively disagrees with that assertion.

The Eitner reference relates to upgrading software subsystems without interrupting service. As discussed in connection with FIG. 4 of the reference, a downloadable image 414 is disclosed that includes an operating system 408 and applications 406. The operating system 408 includes a peripheral system download (PSDL) module which controls the actual erasing and burning of target packs in flash memory. (Eitner, col. 6, line 66 – col. 7, line 2) Although the Eitner patent mentions a downloadable image, there is no suggestion that the downloadable image 414 includes a flash erase file as recited in the pending claims. Furthermore, although the Eitner patent mentions a PSDL that controls the actual erasing and burning of target packs in flash memory, the disclosed method is very different from the subject matter of the pending claims. For example, there is no teaching or suggestion of appending the contents of a flash erase file to a packet header that contains instructions to overwrite contents of software in the peripheral device with the appended contents and to transfer the packet header and upgrade software to the peripheral device by a connection as recited in the pending claims. The Eitner reference does not disclose or suggest the claim features missing from the Deegan reference. In view of the foregoing remarks, applicant respectfully requests reconsideration and withdrawal of the rejection of independent claims 1, 9, 18 and 25. Dependent claims 2-6, 10-15, 19-22, 26-29 and 31 should be allowed at least for the same reason.

Claims 8, 17 and 24 stand rejected as being allegedly unpatentable over Deegan in view of Eitner and further in view of U.S. Patent 6,601,212 to Gutha et. al. (Gutha). The Gutha reference relates to a method and apparatus for downloading firmware to a non-volatile memory. The Gutha reference, however, does not disclose or suggest the claim features missing from the

Deegan and Eitner references.   For at least these reasons, applicant respectively requests withdrawl of the rejections of claims 8, 17 and 24.
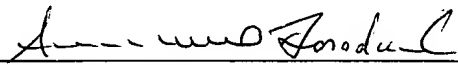
Conclusion

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the comments made above may not be exhaustive, there will likely be reasons for patentability of the pending claims that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing remarks, applicant respectfully requests allowance of the claims. Please apply any charges or credits to deposit account 06-1050, referencing Attorney Docket No. 10559-371001.

Respectfully submitted,

Date:___1/5/2005_____   _____

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